Amendments to the Claims

In accordance with 37 CFR 1.121 a Claim Listing is included and the status of each claim is indicated according to the seven permissible status identifiers, i.e. (Original), (Currently amended), (Cancelled), (Previously presented), (New), (Not entered), (Withdrawn). Amended claims use underline for additions and strike-through for deletions.

Claim Listing:

Claim 1. (currently amended) A combination therapeutic and diagnostic microparticle comprising a core, at least one linking carrier on said core, wherein said linking carrier comprises a biocompatible polymer, and at least two ~~one~~ radioactive therapeutic agents ~~agent~~ covalently bonded to said linking carrier; wherein said microparticle has a diameter in the range of from 5 to 200 microns and said microparticle is non-biodegradable and is not water swellable, wherein the at least two radioactive therapeutic agents are selected from the group consisting of a therapeutic beta-emitting radionuclide and an imaging or diagnostic gamma-emitting radionuclide.

Claim 2-7. (canceled).

Claim 7. (currently amended) The microparticle of claim 1 ~~particle of claim 5~~, wherein said radioactive therapeutic agent is at least one radionuclide selected from the group consisting of iridium, radium, cesium, phosphorus, yttrium, rhenium, actinium, bismuth, astatine, technetium, indium, iodine, and carbon, nitrogen, fluorine, sodium, magnesium, aluminum, silicon, potassium, vanadium, manganese, gallium, niobium, iodine, lead, Y-90, Bi-213, At-211, I-123, I-125, I-131, At-211, Cu-67, Sc-47, Ga-67, Rh-105, Pr-142, Nd-147, Pm-151, Sm-153, Ho-166, Gd-159, Th-161, Eu-152, Er-171, Re-186, Re-188, Tc-99m, In-111, Ga-67, Rh-105, I-123, Nd-147, Pm-151, Sm-153, Gd-159, Th-161, Er-171, Re-186, Re-188, and T1-201.

Claim 8. (currently amended) The microparticle ~~particle~~ of claim 1, wherein said therapeutic beta-emitting radionuclide ~~radioactive therapeutic agent~~ is yttrium-90.

Claim 9-10. (canceled)

Claim 11. (currently amended) The microparticle of claim 1 ~~particle of claim 10~~, wherein said therapeutic beta-emitting radionuclide is yttrium-90 and said ~~an~~ imaging or diagnostic gamma-emitting radionuclide is selected from the group consisting of indium-111 and Tc-99m.

Claim 12. (currently amended) The microparticle of claim particle of claim 1, wherein said radioactive therapeutic agent is bonded to said linking carrier through one or more spacer groups.

Claim 13. (currently amended) The microparticle of claim particle of claim 1, wherein said radioactive therapeutic agent is bound to said linking carrier by a chelator group.

Claim 14. (currently amended) The microparticle of claim particle of claim 13, wherein said chelator group is at least one selected from the group consisting of cyclohexyldiethylenetriaminepentaac- etic acid ligand (CHX-DTPA), diethylenetriaminepentaacetic acid (DTPA), ethylenediaminetetraacetic acid (EDTA), 1,4,7,10-tetraazacyclododecane-N,- N',N,"N'"tetraacetate (DOTA), tetraazacyclotetradecane-N,N", N"N"-tetraacetic acid (TETA), cyclohexyl 1,2-diamine tetra-acetic acid (CDTA), ethyleneglycol-O,O'-bis(-2-aminoethyl)-N,N,N',N'-tetra-acetic acid (EGTA), N,N-bis(hydroxybenzyl)-e-thylenediamine-N,N'-diacetic acid (HBED), triethylene tetramine hexa-acetic acid (TTHA), hydroxyethyldiamine triacetic acid (HEDTA), hydroxyethylidene diphosphonate (HEDP), dimercaptosuccinic acid (DMSA), diethylenetriaminetetramethylenephosphonic acid (DTTP) and 1-(p-aminobenzyl)-DTPA, 1,6-diamino hexane-N,N,N',N'-tetraacetic acid, DPDP, and ethylenebis (oxyethylenenitrilo)-tetraacetic acid.

Claim 15. (currently amended) The microparticle of claim 13 ~~particle of claim 13~~, wherein said therapeutic beta-emitting radionuclide ~~radioactive therapeutic agent~~ is yttrium-90 and said chelator group is DOTA.

Claim 16. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said core is non-ceramic and non-radioactively labeled.

Claim 17. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said core comprises a polymer selected from the group consisting of polyacrylate, ethylene-vinyl acetate polymer, an acyl substituted cellulose acetate, polyurethane, polystyrene, polyvinylchloride, polyvinyl flouride, poly(vinyl imidazole), chlorosulphonate polyolefin, polyethylene oxide, blends thereof, and copolymers thereof, a polyphosphazine, a poly(vinyl alcohol), a polyamide, a polycarbonate, a polyalkylene, a polyacrylamide, a polyalkylene glycol, a polyalkylene oxide, a polyalkylene terephthalate, a polyvinyl ether, a polyvinyl ester, a polyvinyl halide, polyvinylpyrrolidone, a polyglycolide, a polysiloxane, and copolymers thereof, a alkyl cellulose, an hydroxyalkyl cellulose, a cellulose ether, a cellulose ester, and a nitrocellulose.

Claim 18. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said at least one linking carrier is selected from the group consisting of a linear polymer, a branched polymer, and a dendromer polymer.

Claim 19. (currently amended) The microparticle of claim 18 ~~particle of claim 18~~, wherein said at least one linking carrier is a dendrimer.

Claim 20. (currently amended) The microparticle of claim 19 ~~particle of claim 19~~, wherein said dendrimer has a disulfide bond in its core.

Claim 21. (currently amended) The microparticle of claim 19 ~~particle of claim 19~~, wherein said dendrimer has a final external layer which is capped with a reactive group.

Claim 22. (currently amended) The microparticle of claim 21 ~~particle of claim 21~~, wherein said reactive group is an amine or carboxyl group.

Claim 23. (currently amended) The microparticle of claim 21 ~~particle of claim 21~~, wherein said reactive group is derivatized with at least one selected from the group consisting of a targeting entity and a therapeutic entity.

Claim 24. (currently amended) The microparticle of claim 19 ~~particle of claim 19~~, wherein said dendrimer has a terminal functional group which is accessible to a chelate containing compound which is capable of interacting with the functional groups.

Claim 25. (currently amended) The microparticle of claim 24 ~~particle of claim 24~~, wherein said functional group is at least one selected from the group consisting of ester group, ether group, thiol group, carbonyl group, hydroxyl group, amide group, carboxylic group, and imide group.

Claim 26. (currently amended) The microparticle of claim 19 ~~particle of claim 19~~, comprising multiple dendrimers, wherein said dendrimers are monodispersed.

Claim 27-28. (withdrawn as non-elected species).

Claim 29. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said particle does not leach radionuclide.

Claim 30. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said particle is spheroidal.

Claim 31. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said particle has a density in the range of from 1 to 4 gm/cm.sup.3.

Claim 32. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said particle has a density in the range of from 1 to 2 gm/cm.sup.3.

Claim 33. (currently amended) The microparticle of claim 1 ~~particle of claim 1~~, wherein said particle further comprises a second therapeutic agent or a diagnostic agent.

Claim 34. (currently amended) The microparticle of claim 33 ~~particle of claim 33~~, wherein said second therapeutic agent or said diagnostic agent is at least one selected from the group consisting of a metal chelate complex, a drug, a prodrug, a radionuclide, a boron addend, a labeling compound, a toxin, a cytokine, a lymphokine, a chemokine, an immunomodulator, a radiosensitizer, an asparaginase, a radioactive halogens, a chemotherapy drug and a contrast agent.

Claim 35. (currently amended) A particulate material comprising microparticles having: a core, at least one linking carrier on said core, wherein said linking carrier comprises a biocompatible polymer, and at least two radioactive therapeutic agents covalently bonded to said linking carrier;

wherein said microparticle has a diameter in the range of from 5 to 200 microns and said microparticle is non-biodegradable and is not water swellable, wherein the at least two radioactive therapeutic agents are selected from the group consisting of a therapeutic beta-emitting radionuclide and an imaging or diagnostic gamma-emitting radionuclide.
~~at least one radioactive therapeutic agent covalently bonded to said linking carrier; wherein said microparticles have a diameter in the range of from 5 to 200 microns and said microparticles are non-biodegradable~~.

Claim 36. (original) The particulate material of claim 35, wherein said microparticles have a diameter in the range of from 8-100 microns.

Claim 37. (original) The particulate material of claim 35, wherein said microparticles have a diameter in the range of from 25-50 microns.

Claim 38. (original) The particulate material of claim 35, wherein said microparticles have a diameter in the range of from 20-30 microns.

Claim 39. (original) The particulate material of claim 35, wherein said microparticles have substantially equivalent particle sizes.

Claim 40. (original) The particulate material of claim 35, wherein said microparticles are sufficiently large so as to avoid phagocytosis.

Claim 41-71 (withdrawn as non-elected invention)

Claim 72-81. (canceled)

Claim 82-84 (withdrawn as non-elected invention).

85. (currently amended) The microparticle ~~particle~~ of claim 1, wherein said microparticle has a diameter in the range of from about 8 to about 100 microns.

86. (currently amended) The microparticle ~~particle~~ of claim 1, wherein said microparticle has a diameter in the range of from about 20 to about 30 microns.

Amendments to the Drawings under 37 C.F.R. 1.121(d)

There are no amendments to the drawings at this time.